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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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09/579,576 05/25/00 KWEON

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EXAMINER

WILLS, M

ART UNIT

PAPER NUMBER

1745

DATE MAILED: 10/09/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/579,576

Applicant(s)

KWEON ET AL.

Examiner

Wills M Monique

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 5/25/00 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-4 are rejected under 35 U.S.C. 102(a) as being anticipated by Ikawa et al. U.S. Patent 5,922,491.

Ikawa teaches a positive electrode including a lithiated transition metal and a semi-metal additive including Al and B (col. 25, lines 60-65 and col. 26 lines 5-30). Metal oxides may also be included (col. 9 lines 25-35). The lithiated transition metal may be selected from LiMnO_2 (col. 25, lines 60-65) (subject formula (1)). The additives were employed at 0.2% by weight (col. 25, lines 20-25).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 & 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyasaka U.S. Patent 5,869,208.

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Miyasaka teaches a positive electrode including a lithiated transition and a carbonaceous metal, such as graphite or acetylene black (col. 12, lines 5-15) The lithiated transition metal may be selected from $\text{Li}_x \text{MnO}_{2-z} \text{A}_z$ (No. 1 on Table 1) and $\text{Li}_x \text{Mn}_{2-y} \text{M}' \text{A}_4$ (No. 2, 8, 25 & 29 on Table 1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ikawa et al. U.S. Patent 5,922,491 as applied to claim 1 above.

Ikawa teaches a positive electrode including a lithiated transition metal and a semi-metal additive including Al and B (col. 25, lines 60-65 and col. 26 lines 5-30). Metal oxides may also be included (col. 9 lines 25-35). The lithiated transition metal may be selected from LiMnO_2 (col. 25, lines 60-65). The additives were employed at 0.2% by weight (col. 25, lines 20-25). The positive electrode is made by the process of; mixing said constituents and applying the mixture to a current collector (col. 25, lines 20-35).

The reference is silent to adding an organic solvent to the mixture.

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However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add an organic solvent to the cathode material in order to increase conductivity of the cell. Official Notice is taken that it is well known in the art to add electrolyte solvents (organic solvents) to electrodes to increase conductivity. The rationale supporting an obviousness rejection may be based on common knowledge in the art or "well - known" prior art. The examiner may take official notice of facts outside of the record which are capable of instant and unquestionable demonstration as being "well - known" in the art. In re Ahlert , 424 F.2d 1088, 165 USPQ 418, 420 (CCPA 1970) (Board properly took judicial notice that "it is common practice to postheat a weld after the welding operation is completed" and that "it is old to adjust the intensity of a flame in accordance with the heat requirements."). See also In re Seifreid , 407 F.2d 897, 160 USPQ 804 (CCPA 1969) (Examiner's statement that polyethylene terephthalate films are commonly known to be shrinkable is a statement of common knowledge in the art, supported by the references of record.).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sungawa et al. U.S. Patent 6,040,090 teaches a positive electrode material for use in non-aqueous electrolyte battery processes.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Monique Wills whose telephone number is

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(703) 305-0073. The Examiner can normally be reached on Monday-Friday from 8:30am to 5:00 pm.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

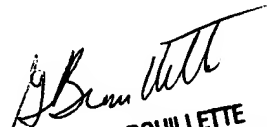
If attempts to reach Examiner by telephone are unsuccessful, the Examiner's supervisor, Gabrielle Brouillette, may be reached at 703-308-0756.

The unofficial fax number is (703) 305-3599. The Official fax number for non-final amendments is 703-872-9310. The Official fax number for after final amendments is 703-872-9311.

Mw

10/02/01

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